GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA

STARRED QUESTION NO:109
ANSWERED ON:22.07.2002
IMPACT OF GLOBAL WARMING ON INDIAN AGRICULTURE
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Will the Minister of AGRICULTURE be pleased to state:

(a) whether the global warming has any impact on Indian agriculture resulting in up to 30 per cent drop in crop production by 2050;

(b) if so, whether the Government propose to adopt strategies and resource- conserving technologies for sustainable farm development and improved productivity through low cost mechanism;

(c) whether this will have any impact on rice and wheat yields;

(d) whether the matter was discussed in the South Asia Expert Workshop on Adaptation to Climate Change for Agricultural Productivity held in May, 2002; and

(e) if so, the main points discussed in the Workshop?

Answer

MINISTER OF AGRICULTURE (SHRI AJIT SINGH)

(a) to (e): A statement is laid on the Table of the House.

STATEMENT REFFERED TO IN REPLY TO PARTS (a) TO (e) OF LOK SABHA STARRED QUESTION NO.109 DUE FOR REPLY ON 22ND JULY, 2002.

(a)&(c): There is considerable uncertainty in the magnitude of global warming and its impact on agricultural production by the year 2050. The Inter-governmental Panel on Climate Change (IPCC), jointly established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), in its Third Assessment Report finalized in 2001 has projected that global average surface temperature may increase by 1.4? C to 5.8? C over the period 1990-2100. The IPCC report specifically considers agriculture as highly vulnerable to impacts of climate change in the South Asian region. Crop production and aquaculture would be threatened by thermal and water stresses, sea-level rise, increased flooding, and strong winds associated with intense tropical cyclones. The specific effect of global warming on Indian agriculture, including rice and wheat would depend upon the actual change in temperature and other climatic features together with adaptation and mitigation strategies.

(b): Ministry of Agriculture has been adopting various resource conservation programmes and schemes to promote efficient utilization of water, land, nutrients and pesticides etc. for sustainable farm development in the country. Some major programmes and schemes are as under:-

1. National Watershed Development Project for Rainfed Areas (NWDPRA).

2. Soil conservation for Enhancing Productivity of Degraded lands in the catchments of River Valley Projects and Flood Prone Rivers.

3. Reclamation of alkali soils.

4. Watershed Development Project in Shifting Cultivation Areas (WDSCA).

5. National Project on Development and Use of Biofertilisers.

6. Promotion of Integrated Pest Management.

7 National Project on organic farming.

8. Promotion of zero tillage.

9. Promotion of drip and sprinkler irrigation under the scheme Development of Horticulture through Plasti-culture Intervention.

(d)&(e): Yes, Sir. Main goal of the South Asia Expert Workshop on`Adaptation to Climate Change for Agricultural Productivity` held in May 2002 had two objectives; I) to increase awareness in the region of the impact of climate change on agriculture and about the existence of potential solutions. ii) to make recommendations to the Eighth Conference of Parties (COP8) of the UNFramework Convention on Climate Change (UNFCCC) being hosted in New Delhiin October 2002. The workshop discussed vulnerability, adaptation and mitigation issues of Agriculture in the South Asian Region. Some key recommendations arrived at in the Workshop are as follows:-

1. Sustainable development policies and programmes in areas such as watershed development, promotion of resource conserving technologies, natural resource management and development of plant varieties should be taken as `no regret measures` and need to be supported and strengthened.

2. Adaptation science and policies should be holistic i.e., farming systems based rather than single commodity or single discipline.

3. There is a need for adopting an action-based framework/guidelines by mainstreaming adaptation into national and regional planning policies.

The major components of such a framework would be:

? A cafeteria of programmes and projects, which could be adopted by national governments.
? Provide additional support to on-going governmental programmes, which have an adaptation element to combat climate change.
? Provide incentive structure for those promoting adaptation. Role of farmers mitigating greenhouse gases need to be positively recognized within the Clean Development Mechanism of the Kyoto Protocol.
? Promote capacity building programmes.
? Provide for networking of international, regional and national institutions for experience sharing.
? Documentation of best practices and its dissemination to the farmers.
? Monitoring and evaluation of adaptation process.

4. There is need of strengthening public research on adaptation for both international as well as national research systems.

5. International funding support shall be required for the operationalization of necessary adaptation and mitigation measures.